MIAMI-DADE WATER & SEWER DEPARTMENT

2001 WATER QUALITY DATA

REGULATED AND UNREGULATED DETECTED PARAMETERS*

PARAMETER	FEDERAL MCL (a)	FEDERAL GOAL (b)	STATE MCL	YEAR TESTED	MAIN SYSTEM WATER TREATMENT PLANTS			SOUTH DADE WATER SUPPLY SYSTEM TREATMENT PLANTS					AVENTURA	MAJOR SOURCES
					ALEXANDER ORR, JR.	HIALEAH	JOHN E. PRESTON	ELEVATED TANK	EVERGLADES LABOR CAMP	LEISURE CITY	NARANJA	NEWTON	NORWOOD	
MICROBIOLOGICAL CONTAMINANTS														
Total Coliform Bacteria (c)	5%	0	5%	01	0%	0.70% (0 - 0.70%)	0.69% (0 - 0.69%)	Distribution System-wide = 0%					0%	Naturally present in the environment
VOLATILE ORGANIC CONTAMINANTS														
Total Trihalomethanes (ppb) (d)	100	N/A	100	01	21 (12 - 27)	22 (1 - 71)	49 (22 - 74)	Distribution System-wide = 29 (10 - 91)					29 (16 - 62)	Byproduct of drinking water chlorination
cis-1, 2- Dichloroethylene (ppb)	70	70	70	01	ND	ND	ND	ND	ND	ND	ND	ND	1.2 (0 - 1.2)	Discharge from industrial chemical factories
Trans-1, 2- Dichloroethylene (ppb)	100	100	100	01	ND	ND	ND	ND	ND	ND	ND	ND	0.3 (0 - 0.3)	Discharge from industrial chemical factories
INORGANIC CONTAMINANTS														
Arsenic (ppb)	50	NE	50	99 (h)	0.8	1	2	0.6	0.6	0.9	0.7	1	ND	Erosion of natural deposits
Barium (ppm)	2	2	2	99 (h)	0.009	0.006	0.004	0.018	0.032	0.018	0.017	0.016	ND	Erosion of natural deposits
Beryllium (ppb)	4	4	4	99 (h)	0.03	ND	ND	0.03	0.01	0.06	0.03	0.03	ND	Discharge from metal refineries and coal burning
Chromium (ppb)	100	100	100	99 (h)	0.7	0.2	0.1	0.1	0.05	0.1	0.07	0.06	ND	Erosion of natural deposits
Copper (ppm) (e)	AL = 1.3	1.3	AL = 1.3	99/00(f)	0.1, 0 homes out of 111 (0%) exceeded AL			1.1, 2 homes out of 45 (4.4%) exceeded AL					0.2, 0 homes out of 103 (0%) exceeded AL	Corrosion of household plumbing systems
Fluoride (ppm)	4	4	4	99 (g)	0.8	0.7	0.8	0.1	0.1	0.1	0.1	0.1	1.0	Erosion of natural deposits; Water additive which promotes strong teeth
Lead (ppb) (e)	AL = 15	0	AL = 15	99/00(f)	5, 3 homes out of 111 (2.7%) exceeded AL			3, 0 homes out of 45 (0%) exceeded AL					5, 3 homes out of 101 (3%) exceeded AL	Corrosion of household plumbing systems
Nickel (ppb)	NE	NE	100	99 (h)	0.4	ND	ND	0.6	0.8	0.7	0.6	0.3	ND	Corrosion of bronze
Nitrate (as N) (ppm)	10	10	10	01	0.09	0.04	0.04	6 (4 - 6)	2	6 (4 - 6)	8 (4 - 8)	ND	ND	Erosion of natural deposits; Runoff from fertilizer use
Nitrite (as N) (ppm)	1	1	1	01	0.013	0.003	0.001	ND	ND	ND	ND	ND	0.05	Erosion of natural deposits; Runoff from fertilizer use
Selenium (ppb)	50	50	50	99 (h)	ND	ND	ND	1	0.8	1	1	0.6	ND	Erosion of natural deposits
Sodium (ppm)	NE	NE	160	99 (h)	28	33	33	13	16	13	18	26	19	Erosion of natural deposits and sea water
Thallium (ppb)	2	0.5	2	99 (h)	ND	ND	ND	0.7	ND	ND	0.6	ND	ND	Discharge from electronics, glass and drug factories
RADIOACTIVE CONTAMINANTS														
Alpha Emitters (pCi/L)	15	0	15	99 (h)	0.3	0.0	0.3	2.1	5.4	0.5	0.0	0.5	1.0	Erosion of natural deposits
UNREGULATED CONTAMINANTS														
Chloroform (ppb)	NE	NE	NE	99 (h)	14	5	ND	ND	ND	ND	ND	ND	21	Byproduct of drinking water chlorination
Bromodichloromethane (ppb)	NE	NE	NE	99 (h)	ND	ND	ND	ND	ND	ND	ND	ND	4	Byproduct of drinking water chlorination
Dibromomethane (ppb)	NE	NE	NE	99 (h)	ND	ND	ND	ND	ND	ND	ND	ND	1	Byproduct of drinking water chlorination

RADON DATA SUMMARY

RADON (pCi/L)	NE	NE	NE	01	223	0	7	165	117	62	174	79	79	Naturally occurring in soil and rock formations

***All parameters detected during this reporting period are below maximum contaminant levels allowed.**
Not listed are many others we test for, but were not detected.

FOOTNOTES
Water Quality Table

(a) MCL = Maximum Contaminant Level

(b) Federal Goal = MCLG = Maximum Contaminant Level Goal

(c) The MCL for total coliform bacteria states that drinking water must not show the presence of coliform bacteria in 5% or greater of monthly samples. A minimum of 390 samples for total coliform bacteria testing are collected each month from the Main distribution system (50 samples from the South Dade Water Supply distribution system) in order to demonstrate compliance with regulations.

(d) A total of 48 samples for Total Trihalomethane testing are collected per year from the Main distribution system (16 samples from the South Dade Water Supply Distribution System) in order to demonstrate compliance with State regulations. Compliance is based on a running annual average. This is the value which precedes the parentheses.

(e) 90th percentile value reported. If the 90th percentile value does not exceed the AL (i.e., less than 10% of the homes have levels above the AL), the system is in compliance and is utilizing the prescribed corrosion control measures.

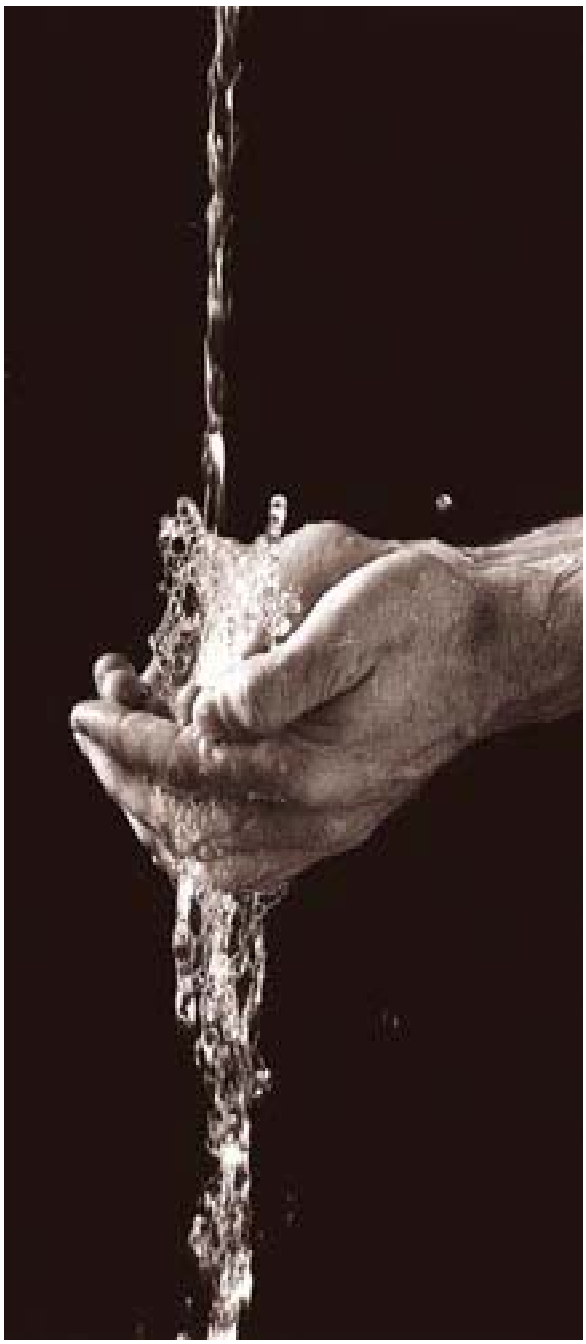
(f) The 99/00 data presented for the Main System and South Dade System respectively is from the most recent testing conducted in accordance with regulations. Both systems are under reduced monitoring which only requires testing every 3 years. The Norwood plant was tested in 2001.

(g) Fluoride testing to demonstrate compliance with State regulations is required every 3 years in accordance with the State's monitoring framework. However, fluoride levels are monitored daily for the Main System treatment plants where fluoride is added to promote strong teeth.

(h) Data presented is from the most recent testing conducted in accordance with regulations. Testing for this parameter is required every 3 years in accordance with the State's monitoring framework (excluding the Norwood plant which was tested in 2001).

ABBREVIATIONS

AL = Action Level
N/A = Not Applicable
ND = None Detected
NE = None Established
pCi/L = picoCuries per Liter
ppb = Parts per billion or micrograms per liter (µg/L)
ppm = Parts per million or milligrams per liter (mg/L)
( ) = Ranges (low - high) are given in parentheses where applicable



DISINFECTION BYPRODUCTS DETECTED, EPA INFORMATION COLLECTION RULE, DATA GATHERING EFFORT (a)

PARAMETER	FEDERAL MCL (b)	FEDERAL MCLG	STATE MCL	YEAR TESTED	MAIN SYSTEM WATER TREATMENT PLANTS			SOUTH DADE WATER SUPPLY SYSTEM	AVENTURA	MAJOR SOURCES
					ALEXANDER ORR, JR.	HIALEAH	JOHN E. PRESTON	LEISURE CITY	NORWOOD	
DISINFECTION BYPRODUCTS										
Haloacetic Acids (HAA5) (ppb) (c)	60	NE	NE	98	17 (15 - 22)	45 (33 - 57)	71 (41 - 93)	3.2(2.8-4.1)	34 (3 - 113)	Byproduct of drinking water chlorination
Haloacetonitriles (HANs) (ppb) (d)	NE	NE	NE	98	3.7 (2.5 - 4.5)	4.2 (2.9 - 6.2)	7.5 (4.2 - 10.1)	4.2(2.2-5.7)	4 (2 - 5)	Byproduct of drinking water chlorination
Haloketones (ppb) (e)	NE	NE	NE	98	0.2 (ND - 0.3)	0.9 (0.6 - 1.6)	1.7 (1.2 - 2.4)	ND	2 (1 - 3)	Byproduct of drinking water chlorination
Chloral Hydrate (ppb)	NE	NE	NE	98	0.3 (ND - 0.6)	1.8 (1.3 - 2.3)	4.4 (1.6 - 7.4)	ND	1 (0 - 3)	Byproduct of drinking water chlorination
Cyanogen Chloride (ppb)	NE	NE	NE	98	ND	1.4 (ND - 2.6)	5.9 (4.2 - 7.8)	(f)	4 (0 - 8)	Byproduct of drinking water chlorination
Total Organic Halides (TOX) (ppb) (g)	NE	NE	NE	98	105 (97 - 115)	238 (193 - 280)	334 (244 - 371)	ND	181 (0 - 815)	Byproduct of drinking water chlorination
DISINFECTANT RESIDUALS	MRDL (b)	MRDLG	MRDL							
Chloramine (ppm)	4.0	4.0	NE	98	2.6 (2.2 - 2.9)	2.6 (2.2 - 2.8)	3.1 (3.0 - 3.2)	-	2.9(1.5-3.5)	Addition of Chlorine or Chloramine to water for disinfection
Chlorine (ppm)	4.0	4.0	NE	98	-	-	-	1.5(1.4-1.7)	-	

FOOTNOTES
Disinfection Byproducts Table

(a) Data presented as the average from all samples collected in 1998 with the range (low - high) in parentheses. Data gathering for the Information Collection Rule ended in 1998. This data will continue to be presented in accordance with consumer confidence report criteria.

(b) Effective date for compliance with MCL is January 2004.

(c) HAA5 = the sum of the following individual Haloacetic acids: Monochloroacetic acid, Dichloroacetic acid, Trichloroacetic acid, Monobromoacetic acid and Dibromoacetic acid.

(d) HAN = the sum of the following Haloacetonitriles: Dichloroacetonitrile, Trichloroacetonitrile, Bromochloracetonitrile and Dibromoacetonitrile. Trichloroacetonitrile was not detected in WASD's treated water.

(e) Haloketones = the sum of the following haloketones: 1,1-dichloropropanone and 1,1,1- trichloropropanone.

(f) Testing for cyanogen chloride was only required for systems using chloramines for disinfection. The South Dade System uses chlorine.

(g) TOX is a surrogate parameter used to indicate the potential that water has for forming disinfection byproducts when a disinfectant is added to it.

ABBREVIATIONS

MRDL = Maximum Residual Disinfectant Level
MRDLG = Maximum Residual Disinfectant Level Goal
ND = None Detected
NE = None Established
ppb = Parts per billion or micrograms per liter (µg/L)
ppm = Parts per million or milligrams per liter (mg/L)

DEFINITION OF TERMS

Maximum Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL)

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level Goal (MRDLG)

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level (MRDL)

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Action Levels

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Detect

The presence of a contaminant at or above the minimum detection level of the test method.